

## Remarks

### I. Status of claims

Claims 1-18 were pending.

Independent claims 1 and 10 have been amended.

Dependent claims 19 and 20 have been added. Support for the features recited in claims 19 and 20 is provided in paragraphs [0009], [0024], and [0026] of the application.

### II. Claim rejections under 35 U.S.C. § 102

The Examiner has rejected claims 1-4, 7, 10-13, and 16 under 35 U.S.C. § 102(e) over Czarnocha (U.S. 6,504,630).

#### A. Independent claim 1

Independent claim 1 has been amended and now recites "in response to a successful detection of the loss of signal, maintaining the transmitting of an output signal on a designated one of the output channels while disabling the transmitting of output signals on all but the designated one of the output channels." Czarnocha does not teach or suggest this step. Indeed, Czarnocha teaches that (col. 5, lines 34-53; emphasis added):

In response to the detection of a loss of signal (traffic and supervisory), optical amplifier 122 is shut down so that the traffic signals are not transmitted from optical amplifier 122 in network element 120 in the upstream direction to optical amplifier 112 in network element 110 via optical fiber path 131 (step 203 in FIG. 2). By way of example, the loss of signal detected at the input of optical amplifier 121 may be communicated to controller 126 (step 202 in FIG. 2) which, in turn, may effect the shut-down of optical amplifier 122 by turning off the pump power supplied to optical amplifier 122. Other well-known techniques may also be used for shutting down optical amplifier 122. Because optical fiber path 131 is not actually cut, the supervisory signal supplied from supervisory unit 125 to optical amplifier 122 is still being supplied along optical fiber path 131 even in the absence of the information-bearing optical signals. As such, controller 126 is also used to shut off the supervisory signal supplied from

supervisory unit 125 to optical amplifier 122 for a  
predetermined period of time (step 204 in FIG. 2).

That is, Czarnocha teaches that transmission of all output signals (i.e., the traffic signals and the supervisory signal) are disabled in response to a successful detection of the loss of signal. Accordingly, Czarnocha does not anticipate claim 1.

In addition, one of ordinary skill in the art at the time the invention was made would not have been motivated to modify Czarnocha's approach by disabling only the traffic signals in response to a successful detection of the loss of signal because such a modification would have defeated the object of Czarnocha's invention to automatically reduce the output power level of an upstream network element in response to the detection of both loss of signal power and loss of supervisory signal power at a downstream network element (see col. 1, line 63, through col. 2, line 3). In particular, such a modification would have prevented the downstream network element 120 from "emulating" a fiber cut on optical fiber path 131 and thereby triggering the controller 116 in the upstream network element 110 to shut-down the optical amplifier 111 (see col. 5, line 60 through col. 6, line 18). In which case, the upstream network element 110 would continue to transmit the traffic signals on the cut optical fiber path 130 at an unsafe power level.

For at least these reasons, the Examiner's rejection of independent claim 1 under 35 U.S.C. § 102(e) over Czarnocha now should be withdrawn.

B. Claims 2-4 and 7

Each of claims 2-4 and 7 incorporates the features of independent claim 1 and therefore is patentable over Czarnocha for at least the same reasons.

C. Independent claim 10

Independent claim 10 has been amended and now recites that the control logic block is configured to direct the transmitter to maintain transmission of an output signal on a designated one of the output channels while disabling transmission of output signals on all but the designated one of the output channels in response to a successful detection of the loss of signal by the receiver.

Independent claim 10 is patentable over Czarnocha for at least the same reasons explained above in connection with claim 1.

D. Claims 11-13 and 16

Each of claims 11-13 and 16 incorporates the features of independent claim 10 and therefore is patentable over Czarnocha for at least the same reasons.

III. Claim rejections under 35 U.S.C. § 103

The Examiner has rejected claims 5, 6, 8, 9, 14, 15, 17, and 18 under 35 U.S.C. § 103(a) over Czarnocha in view of Monnard (U.S. 6,633,430).

Each of claims 5, 6, 8, and 9 incorporates the features of independent claim 1 and each of claims 14, 15, 17, and 18 incorporates the features of independent claim 10. The Examiner has cited Monnard merely for the proposition that Monnard "teaches the step of transmitting has a data rate greater than 1 Gbps (Figs. 1 and 4, col. 3, lines 10-25 and col. 5, lines 7-19). Monnard, however, does not make-up for the failure of Czarnocha to teach or suggest the features of independent claims 1 and 10 discussed above. Accordingly, claims 5, 6, 8, 9, 14, 15, 17, and 18 are patentable over Czarnocha and Monnard for at least the same reasons explained above.

IV. Conclusion

For the reasons explained above, all of the pending claims are now in condition for allowance and should be allowed.

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Serial No. : 09/991,570  
Filed : Nov. 16, 2001  
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Attorney's Docket No.: 10010716-1  
Amendment dated December 31, 2004  
Reply to Office action dated October 4, 2004

Respectfully submitted,

Date: December 31, 2004



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